DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

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Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-023540
Date Inspected: 12-May-2011

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island

OSM Arrival Time: 700
OSM Departure Time: 1900
Location: Shanghai, China

CWI Name:	N/A				**CWI Present:**	☑	**Yes**	☐	**No**		
Inspected CWI report:	☐	**Yes**	☐	**No**	☑ **N/A**	**Rod Oven in Use:**	☐	**Yes**	☐	**No**	☑ **N/A**
Electrode to specification:	☐	**Yes**	☐	**No**	☑ **N/A**	**Weld Procedures Followed:**	☐	**Yes**	☐	**No**	☑ **N/A**
Qualified Welders:	☐	**Yes**	☐	**No**	☑ **N/A**	**Verified Joint Fit-up:**	☐	**Yes**	☐	**No**	☑ **N/A**
Approved Drawings:	☐	**Yes**	☐	**No**	☑ **N/A**	**Approved WPS:**	☐	**Yes**	☐	**No**	☑ **N/A**
						Delayed / Cancelled:	☐	**Yes**	☑	**No**	☐ **N/A**

Bridge No: 34-0006
Component: OBG Trial Assembly

Summary of Items Observed:

On this date Caltrans OSM Quality Assurance (QA) Inspector Mr. S. Manjunath Math was present during the time noted above for observations relative to the work being performed.

This QA Inspector randomly observed the following work in progress:

Orthotropic Box Girder (OBG) at Trial Assembly Areas

Segment 12AE (Handrails)

This QA Inspector witnessed the final bolt tension verification on bolts connecting the Handrail to Fiber Glass Grating between Panel Points (PP) 109 till PP 112.5 for Segment 12AE. Handrails are installed at Bottom Panel and Side Panel Cross Beam side at FL3 area. The QA Inspector verified the bolt tension on a random basis and the results appeared to be in general compliance. The Inspection was performed against Notification No. 00681 dated May 12, 2011.

The bolt sizes used were M16 x 95 RC Lot # DHGM160046 and the final torque value established was Snug Tight.

The bolt sizes used were M16 x 55 RC Lot # DHGM160012 and the final torque value established was 200N-m.

A spanner wrench was used to verify the snug tight condition.

Segment 12BE (Handrails)

This QA Inspector witnessed the final bolt tension verification on bolts connecting the Handrail to Fiber Glass Grating between Panel Points (PP) 112.5 till PP 114.5 for Segment 12BE. Handrails are installed at Bottom Panel and Side Panel Cross Beam side at FL3 area. The QA Inspector verified the bolt tension on a random basis and the results appeared to be in general compliance. The Inspection was performed against Notification No. 00681 dated May 12, 2011.

The bolt sizes used were M16 x 95 RC Lot # DHGM160046 and the final torque value established was Snug Tight.

A spanner wrench was used to verify the snug tight condition.

Segment 12CE (Handrails)

This QA Inspector witnessed the final bolt tension verification on bolts connecting the Handrail to Fiber Glass Grating between Panel Points (PP) 114.5 till PP 117 for Segment 12CE. Handrails are installed at Bottom Panel and Side Panel Cross Beam side at FL3 area. The QA Inspector verified the bolt tension on a random basis and the results appeared to be in general compliance. The Inspection was performed against Notification No. 00681 dated May 12, 2011.

The bolt sizes used were M16 x 95 RC Lot # DHGM160046 and the final torque value established was Snug Tight.

A spanner wrench was used to verify the snug tight condition.

Segment 12AW (Handrails)

This QA Inspector witnessed the final bolt tension verification on bolts connecting the Handrail to Fiber Glass Grating between Panel Points (PP) 109 till PP 112.5 for Segment 12AW. Handrails are installed at Bottom Panel and Side Panel Cross Beam side at FL3 area. The QA Inspector verified the bolt tension on a random basis and the results appeared to be in general compliance. The Inspection was performed against Notification No. 00682 dated May 12, 2011.

The bolt sizes used were M16 x 95 RC Lot # DHGM160046 and the final torque value established was Snug Tight.

The bolt sizes used were M16 x 55 RC Lot # DHGM160012 and the final torque value established was 200N-m.

A spanner wrench was used to verify the snug tight condition.

Segment 12BW (Handrails)

This QA Inspector witnessed the final bolt tension verification on bolts connecting the Handrail to Fiber Glass Grating between Panel Points (PP) 112.5 till PP 114.5 for Segment 12BW. Handrails are installed at Bottom Panel and Side Panel Cross Beam side at FL3 area. The QA Inspector verified the bolt tension on a random basis and the results appeared to be in general compliance. The Inspection was performed against Notification No. 00682 dated May 12, 2011.

The bolt sizes used were M16 x 95 RC Lot # DHGM160046 and the final torque value established was Snug Tight.

A spanner wrench was used to verify the snug tight condition.

Segment 12CW (Handrails)

This QA Inspector witnessed the final bolt tension verification on bolts connecting the Handrail to Fiber Glass Grating between Panel Points (PP) 114.5 till PP 117 for Segment 12CW. Handrails are installed at Bottom Panel and Side Panel Cross Beam side at FL3 area. The QA Inspector verified the bolt tension on a random basis and the results appeared to be in general compliance. The Inspection was performed against Notification No. 00682 dated May 12, 2011.

The bolt sizes used were M16 x 95 RC Lot # DHGM160046 and the final torque value established was Snug Tight.

A spanner wrench was used to verify the snug tight condition.

Cross Beam # 17(Handrails)

This QA Inspector witnessed the final bolt tension verification on bolts connecting the Handrail to Fiber Glass Grating between Panel Points (PP) 110 till PP 111 for Cross Beam # 17. Handrails are installed at Bottom Plate side. The QA Inspector verified the bolt tension on a random basis and the results appeared to be in general compliance. The Inspection was performed against Notification No. 00681 dated May 12, 2011.

The bolt sizes used were M16 x 95 RC Lot # DHGM160046 and the final torque value established was Snug Tight.

A spanner wrench was used to verify the snug tight condition.

Segment 12CE

This QA Inspector along with Caltrans QA Inspector Mr. Manoj Prabhune photographed the interior structural parts of the OBG Segment at various locations prior to the shipment of (Voyage 8) of Lift 12 West en-route to Yerba Buena Island, California, USA. The Lift 12 West is located on ZPMC Ship Zhenhua # 18 at Jetty # 5.

The Segments are identified as following.

At Panel Points (PP) 115, PP 115.2, PP 115.5, PP 116, PP 116.5, PP 117 and PP 117.25 (Cross Beam and Bike Path side).

1.Corner Assembly covering overall view, Deck Panel I-stiffeners, Edge Panel I-Stiffeners and Corner Assembly, Side Panel I-Stiffeners.

2.Longitudinal Diaphragm (LD) at work point E4 and work point E3, North and South facing of the LD.

3.Lower Chevron covering Overall view, North facing, South facing, East facing and West facing at work point E4 and work point E3.

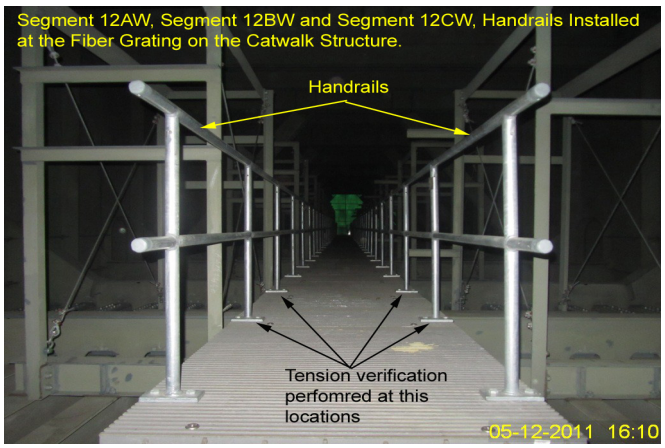
4.Upper Chevron covering Overall view, North facing, South facing, East facing and West facing at Cross Beam and Counter Weight side.

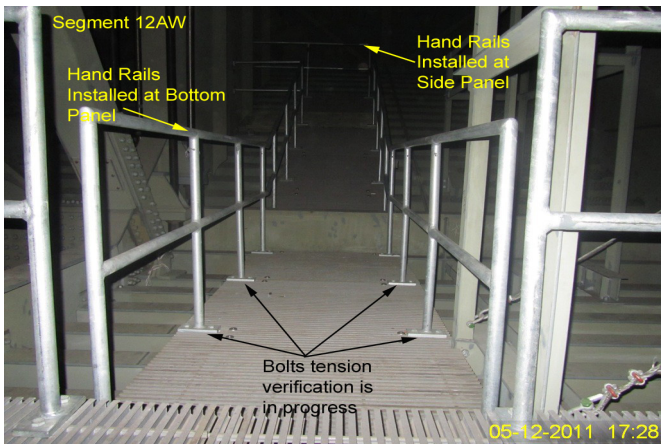
5.Intermediate Panel Points at Corner Assembly, Cross and Vertical Truss Post bolting area (Cross Beam and Counter Weight Side).

6.Segment 12CE overall structure of OBG, from external side showing all the faces.

Note: The following mentioned locations the photographs were taken and submitted to Caltrans Lead Inspector Mr. Mark Miller the photographs are available for review upon request.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.





Summary of Conversations:

No relevant conversations were reported on this date.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang 15000422372, who represents the Office of Structural Materials for your project.

WELDING INSPECTION REPORT

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Inspected By:	Math,Manjunath	Quality Assurance Inspector
Reviewed By:	Miller,Mark	QA Reviewer